

REMARKS

Pending Claims

Claims 5, 16, and 18 as well as paragraph [0018] have been amended to correct typographical errors. In addition, in the Response to Restriction Requirement filed on November 11, 2005, claims 22-38 were withdrawn and are herein cancelled without prejudice to filing these claims in one or more divisional applications. Thus, claims 1-22 are pending.

Rejection of Claims 1-11 under 35 U.S.C. § 103(a)

The Examiner has rejected the above-identified claims as being unpatentable over Platman et al. (U.S. Patent No. 5,246,494) in view of Johnson et al. (U.S. Patent No. 5,837,045).

On page 2 of the Office Action, the Examiner states that Platman et al. teaches a mixed coupled azo pigment prepared from 30 to 70 percent of two or more diazonium components and an organic coupling component that can be used in inks, plastics, and coatings. The Examiner further states that the mixed coupled azo pigments are prepared by initially diazotizing a mixture of two or more aromatic amine compounds, which can contain one or more acid groups (Y), to form a mixture of diazonium salts, which are coupled with a coupling component. The Examiner also states that, while Platman et al. is silent on the pigment being dispersible without a dispersant, the Examiner believes that, since the pigment inherently has acid groups attached to the surface, this would make it dispersible without a dispersant.

The Examiner notes that Platman et al. fails to teach an inkjet ink composition. However, the Examiner states that Johnson et al. teaches a surface modified colored pigment which comprises at least one aromatic group and at least one ionic or ionizable group or a mixture thereof, wherein the pigment may be an azo pigment, and also teaches that the pigment may be used in an aqueous system wherein the amount of water is in the range from about 50 to about 95 percent by weight. The Examiner therefore concludes that it would have been obvious

to one of ordinary skill in the art to use the pigment as taught by Platman et al. in the ink composition of Johnson et al. because Johnson et al. teaches a similar pigment composition as disclosed by Platman.

Applicant respectfully disagrees. Regarding claims 1-11, claim 1 recites an inkjet ink composition comprising a) a liquid vehicle and b) a modified azo pigment, wherein the modified azo pigment is the reaction product of at least one first diazonium reagent, at least one second diazonium reagent, and at least one azo coupler. The inkjet ink composition does not comprise a separate dispersant.

Platman et al. describes a mixed coupled azo pigment prepared from the combination of two or more diazonium components and an organic coupling component, and various methods of combining these components are shown. One of the diazonium components may be prepared from an aryl amine that contains a group Y, which may be a COOH or SO₃H group.

However, there is no disclosure, teaching, or suggestion that the pigments are dispersible without a separate dispersant, as recited in present claim 1. While this was acknowledged by the Examiner in the Office Action, the Examiner believes that such a property would be inherent to the pigments of Platman et al. because these pigments have acid groups attached to the surface of the pigment. However, contrary to the Examiner's comments, Applicant does not believe that these pigments would inherently be dispersible. The acid groups are not attached to the surface of the pigment but are rather present within the bulk of the pigment. Thus, the pigment of Platman et al. is not a surface-modified pigment. Rather, the pigment of Platman et al. is prepared following a conventional method known in the art for preparing azo pigments (see column 1, lines 16-57 of Platman et al.), with the exception that specific types of components are chosen. This general method of preparing a pigment, also described in the present application (see, for example, paragraph [0003]), is a method in which "the diazonium reagent reacts with the azo coupler to form an azo colorant species" (see paragraph [0015] of the present application). This species is a "building block" which forms the desired pigment. As a result, the mixed coupled pigment of Platman et al. comprises colorant species having acid groups that are within the bulk of the pigment and is therefore not a surface-modified pigment. For this

reason, Applicant believes that such pigments would not be expected to be inherently dispersible without a separate dispersant.

Furthermore, while such pigments are described as being useful in inks, plastics, and coatings, there is no disclosure, teaching or suggestion of an inkjet ink composition comprising the mixed coupled azo pigment, and this has also been acknowledged by the Examiner in the Office Action. To cure this deficiency, the Examiner relies on Johnson et al. and concludes that it would have been obvious to one skilled in the art to use the pigment of Platman et al. in the ink composition of Johnson et al., thereby arriving at the present invention.

Applicant does not believe that one skilled in the art would combine Platman et al. and Johnson et al. because these references relate to very different types of pigments. In particular, Johnson et al. discloses surface-modified colored pigments and uses thereof. By comparison, Platman et al. relates to mixed coupled pigments that are not surface-modified pigments, as discussed in more detail above. Applicant believes that one skilled in the art would not replace the pigments of Johnson et al. with those of Platman et al., particularly without an added dispersant, since there is no disclosure, teaching, or suggestion that the pigments of Platman et al. could be dispersed without a separate dispersant.

Instead, Applicant believes that one skilled in the art may consider the pigments of Platman et al. to be potential starting colored pigments from which the surface-modified colored pigments of Johnson et al. could be prepared (see column 2, line 47 to column 3, line 9 of Johnson et al.). The resulting pigment may then be used in various compositions such as an inkjet ink. However, this is not the inkjet ink composition of claim 1. Thus, even if these references were combined, the resulting combination would not be the presently claimed inkjet ink composition.

Therefore, Applicant believes that claim 1 is patentable over Platman et al. in view of Johnson et al. Furthermore, claims 2-11, which depend directly or indirectly from claim 1, recite further embodiments of the present invention and, for at least the reasons discussed above, are also patentable over these references.

Applicant therefore believes that claims 1-11 are patentable over Platman et al. in view of Johnson et al. and respectfully requests that this rejection be withdrawn.

Allowable Subject Matter


On page 3 of the Office Action, the Examiner states that claims 12-22 are allowable.

Applicant is grateful for the allowance of these claims. Furthermore, in view of the comments provided herein, Applicant also believes that claim 1-11 should be found allowable.

Conclusion

In view of the foregoing, Applicant believes that this application is in good and proper form for allowance, and the Examiner is respectfully requested to pass this application to issue. If, in the opinion of the Examiner, a telephone conference would further expedite the prosecution of this application, the Examiner is invited to call the undersigned.

Respectfully submitted,

By: 
Dr. Robert M. Amici
Reg. No. 52,554
CABOT CORPORATION
Law Department
157 Concord Road
Billerica, MA 01821-7001
(978)-670-6191

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